

Name _____

Date: _____ Period: _____

Food Web Analysis

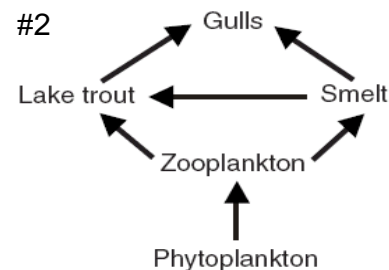
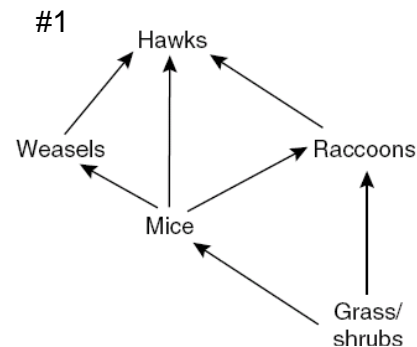
Set 1

1. In each food web (#1-5) do the following:

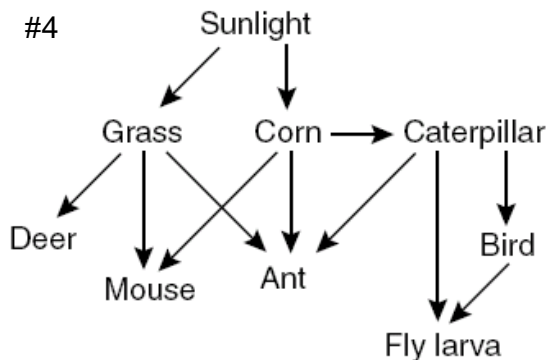
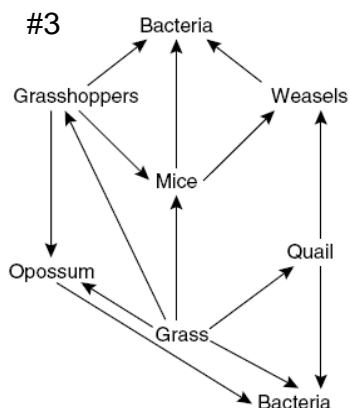
- a. Circle all producers in all food webs.
- b. Label all primary consumers with a 1.
- c. Label all secondary consumers with a 2.
- d. Label all tertiary consumers with a 3.

2. Complete the following table based on the information in the food webs:

Food Web #	Organism	Obtains its energy from:
1	Raccoon	
2	Smelt	
3	Opossum	
4	Ant	
5	Hawk	
5	Mice	

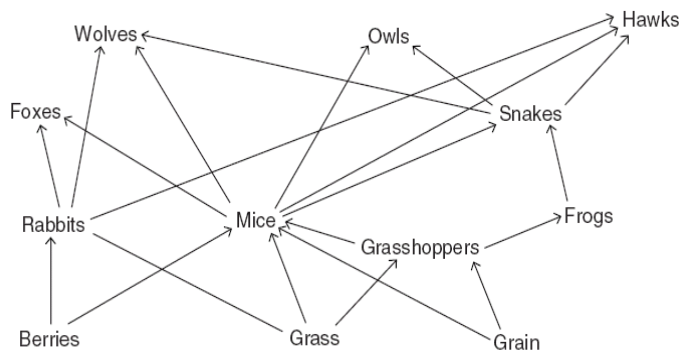


3. A primary consumer eats _____; A secondary consumer eats _____.



4. Name the animals that are **both** primary and secondary consumers from food web #3.

#5 Common Food Web



Use food web 5 for the following:

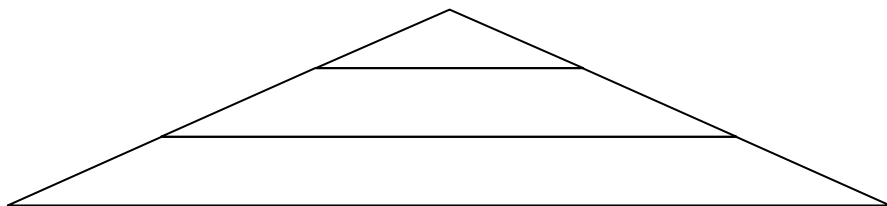
5. What would happen if the grasshoppers all died? What organism populations would increase/decrease & why?
6. What would happen if the hunters over-hunted the wolves? What organism populations would increase/decrease & why?

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Set 2

1. a. Using food chain #3 including grass, mice, and weasels, place each organism in the energy pyramid. Label each trophic level (producer, primary consumer, and secondary consumer) outside the pyramid.

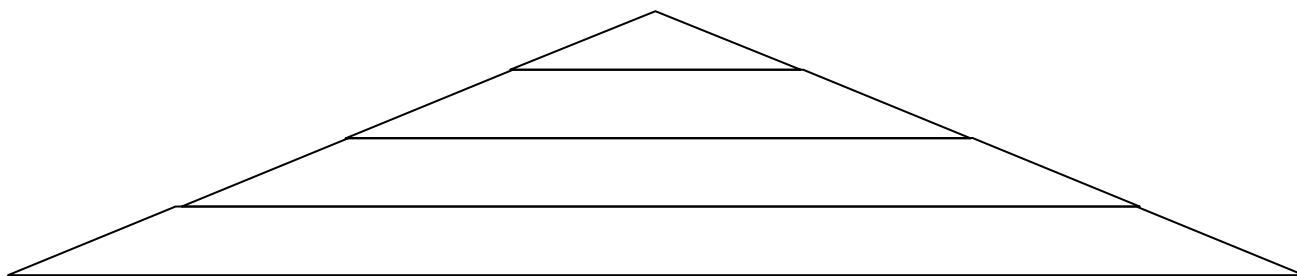


b. If there are 4632 kilocalories (kcal) available in the producer level, how much would be available for the:

i. primary consumer trophic level? _____

ii. secondary consumers? _____

2. a. Using the food chain #5 including berries, mice, snakes, and hawks, place each organism in the energy pyramid. Label each trophic level (producer, primary, secondary, tertiary) outside the pyramid.



b. If there is 50,000 kcal in the producer level, how much energy should be available at the...

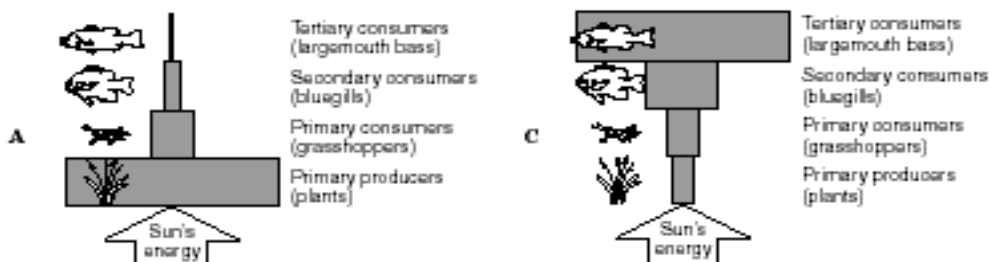
i. primary consumer trophic level? _____

ii. secondary consumer trophic level? _____

iii. tertiary consumer trophic level? _____

3. Which diagram best shows how the amount of stored energy changes going up a food chain? _____

Explain your answer:

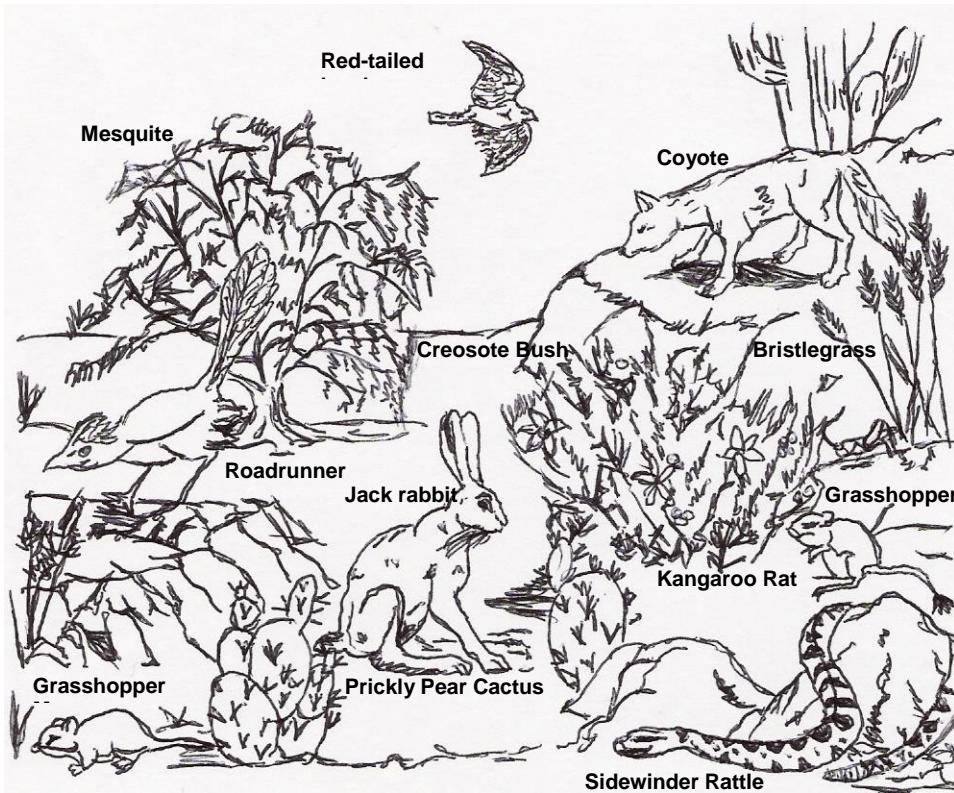


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Set 3

Directions: Analyze the following desert food web for ecological components and impact different scenarios will have on the ecosystem.



Organism list

(food eaten appears in the parentheses)

- Creosote
- Grasshopper mouse (bristlegrass, insects)
- Jack rabbit (bristlegrass, prickly pear, mesquite)
- Sidewinder rattle snake (mice, rats, birds)
- Kangaroo rat (creosote, mesquite, prickly pear)
- Mesquite
- Red-tailed hawk (snakes, mice, rats)
- Coyote (rabbits, mice, rats, insects, birds)
- Prickly Pear Cactus
- Road runner (mice, insects, snakes)
- Bristlegrass
- Grasshopper (bristlegrass)

Analysis:

1. Identify 3 producers in this ecosystem.
2. Identify 2 herbivores in this ecosystem.
3. Identify 2 carnivores in the ecosystem.
4. Identify 1 omnivore in the ecosystem.
5. Make 2 food chains on the back of this page with each trophic level represented.
6. Make a food web on the back of this page for this ecosystem that includes all trophic levels and 12 organisms.
7. Predict what would happen in this community if...
 - a. There was no rain for 2 years?
 - b. All the jackrabbits died?
 - c. More rattle snakes moved into the area?
 - d. The coyote ate all the roadrunners?
8. If there was 13,800 kilocalories (kcal) available at the producer level in a food pyramid, how much energy would be available at
 - a. The first consumer level?
 - b. The second consumer level?
 - c. The tertiary consumer level?
9. In a food pyramid, where does the lost energy go?